



OCT 26 2001

**GE Medical Systems**  
General Electric Company  
P O Box 414 Milwaukee, WI 53201

K013381

## **510(k) SUMMARY OF SAFETY AND EFFECTIVENESS**

This 510(k) summary of safety and effectiveness information is submitted in accordance with the requirements of 21 CFR Part 807.87(h).

**Submitter**                      Larry A. Kroger, Ph.D.  
Senior Regulatory Program Manager  
Telephone: (262) 544-3894, FAX: (262) 544-3863  
Date Prepared: August 22, 2001

### **PRODUCT IDENTIFICATION**

Name:                              Advanced Lung Analysis-1

Classification Name:    Accessory to Computed Tomography System

Classification  
Number:                              892.1750

Manufacturer :                      General Electric Medical Systems  
283, rue de la Miniere  
78533 Buc Cedex, FRANCE

Distributor:                        General Electric Medical Systems, Milwaukee, WI

**Marketed Devices**    Advanced Lung Analysis is substantially equivalent to the device listed below:

Model:                                Tissue Volume  
Manufacturer:                      General Electric Medical Systems, Milwaukee, WI  
510(k) #:                              K963345

### **Device Description:**

Advanced Lung Analysis-1 (ALA-1) is an image analysis software package that provides support to the medical professional in assessing abnormalities such as lesions and nodules and changes in their growth over time. This software allows volumetric estimation of a lesion or nodule size over time. It contains productivity tools such as the book marking tool to keep a record of previously found nodules/lesions, the comparator tool to allow 'synchronized' comparison of nodule/lesion over time, database of all the nodules/lesions detected and enhanced speed and efficiency of the review process.

**Indications for Use:**

Advanced Lung Analysis (ALA-1) is intended to provide an optimized non-invasive application to measure abnormalities in the lung (for example, nodules, lesions etc.) from a set of computed Tomography (CT) images. The analysis is performed on the Advantage Windows Workstation (K913770). The software allows measurement of volume over time using a consistent standardized measurement protocol, thus providing an estimation of the volume doubling time. This may aid the physician in characterization of suspicious nodules and thus, patient management care decision process.

**Comparison with Predicate:**

ALA-1 is an image analysis software package that allows extraction of a suspicious lesion/nodule area found in a series of CT images from the surrounding lung tissue. The tool is laid out to give volumetric estimation of a lesion or nodule size over time. The functional features of this package are substantially equivalent to that of the following device:

Device Name	FDA Clearance Number
Tissue Volume	K 963345

**Adverse Effects on Health :**

The potential hazards are identified in a risk management summary (hazard analysis) and are controlled by:

- Software Development, Validation and Verification Process to ensure performance to specifications, Federal Regulations and user requirements.
- Adherence to industry and international standards.

**Conclusions:**

ALA-1 does not result in any new potential safety risks and performs as well as devices currently on the market. GE considers features of the ALA-1 to be equivalent to those of Tissue Volume (K963345).



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

OCT 26 2001

General Electric Medical Systems  
% Mr. Wolfram Gmelin  
TUV Rheinland of North America  
12 Commerce Road  
NEWTOWN CT 06470

Re: K013381  
Trade/Device Name: Advanced Lung Analysis-1  
Regulation Number: 21 CFR 892.1750  
Regulation Name: Computed tomography x-ray system  
Regulatory Class: II  
Product Code: 90 JAK  
Dated: October 8, 2001  
Received: October 12, 2001

Dear Mr. Gmelin:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (sections 531-542 of the Act); 21 CFR 1000-1050.

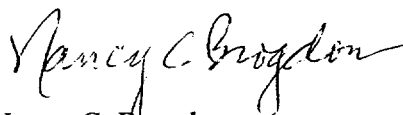
This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at one of the following numbers, based on the regulation number at the top of this letter:

8xx.1xxx	(301) 594-4591
876.2xxx, 3xxx, 4xxx, 5xxx	(301) 594-4616
884.2xxx, 3xxx, 4xxx, 5xxx, 6xxx	(301) 594-4616
892.2xxx, 3xxx, 4xxx, 5xxx	(301) 594-4654
Other	(301) 594-4692

Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>.

Sincerely yours,



Nancy C. Brogdon  
Director, Division of Reproductive,  
Abdominal, and Radiological Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

510(k) Number (if known): K013381

Device Name: Advanced Lung Analysis (ALA-I)

### Indications for Use

Advanced Lung Analysis (ALA-I) is intended to provide an optimized non-invasive application to measure abnormalities in the lung (for example, nodules, lesions etc.) from a set of computed tomography (CT) images. The analysis is performed on the Advantage Windows Workstation (K913770). The software allows measurement of volume over time using a consistent standardized measurement protocol, thus providing an estimation of the volume doubling time. This may aid the physician in characterization of suspicious nodules and thus, patient management care decision process.

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use ✓  
(Per 21 CFR 801-109)

OR Over-The-Counter Use \_\_\_\_\_

Nancy C Brodson  
(Division Sign Off)  
Division of Reproductive, Abdominal,  
and Gynecological Devices  
510(k) Number K013381